

## VARIABILITY IN RAINFALL DROP-SIZE DISTRIBUTIONS OBSERVED AT THE ARM DARWIN SITE

Mary Jane Bartholomew, Brookhaven National Laboratory
Scott Giangrande, Brookhaven National Laboratory
Mick Pope, Bureau of Meteorology
Michael Jensen, Brookhaven National Laboratory

For presentation at
The Second Science Team Meeting of the
Atmospheric System Research (ASR) Program,
San Antonio, TX
March 28-April 1, 2011

## Environmental Sciences Department/Atmospheric Sciences Division Brookhaven National Laboratory

## U.S. Department of Energy Office of Science

## **ABSTRACT**

The variability of rainfall drop-size distributions as a function of large-scale atmospheric conditions and cloud/storm characteristics is investigated using observations from the Atmospheric Radiation Measurement (ARM) Climate Research Facility's site at Darwin, Australia. Drop-size distribution observations are obtained from an impact disdrometer over a four-year period (2006–2010). The suite of complementary long-term observations from the ARM collocated surface instruments, including a millimeter cloud radar and nearby radiosondes, etc., provides a means to describe the cloud and storm characteristics as well as local and regional atmospheric state accompanying these statistics of the drop-size distributions.

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